

Mercury Checklist for Schools and Related Institutions

Many mercury-added and –containing devices and chemicals have available substitutes which have no or significantly less mercury, or are less likely to release mercury into the environment. These substitutions should be made to the greatest extent possible.

If items containing mercury cannot be removed because no feasible substitute is available, they should be identified and labeled, and plans should be in place to reduce the hazard of release while the item is in use, and to ensure proper recycling or disposal when you are finished with it.

Priority Sources

Ck	Item
	Temperature sensors, including lab thermometers, cooking/candy thermometers and fever thermometers; hygrometers; equipment thermometers; and thermostats
	Barometers and other pressure sensing equipment including manometers and vacuum gauges
	Mercury-containing reagents: a. Mercury analytical standards b. Gas chromatograph sample interferences (elemental mercury) c. Mercury or mercurous chloride, d. Mercury iodide, e. Mercury nitrate, f. Mercury (II) oxide, g. Mercury (II) sulfate, h. Zenker's solution
	Sodium hypochlorite (bleach) and other bulk chemicals which may be contaminated with mercury (this may require a laboratory analysis of a batch from your supplier)
	Bulk mercury for any current or former equipment, usually packaged in glass jars
	Fluorescent and mercury-vapor light bulbs (see below for more information)
	Art supplies such as "Cadmium Vermillion Red" pigment and True Vermillion paint.

Additional sources you may encounter and other details:

1. Science room equipment and materials:

- a. Mercury vacuum gauges
- b. Spectral tubes
- c. Mercury sling psychrometer

2. Facilities equipment and supplies

- a. Fluorescent lamps (because fluorescent lamps are more efficient than incandescent, and electricity generation often produces mercury air pollution, using these lamps is an overall environmental benefit, so long as they are handled properly and recycled)
- b. Mercury thermostats
- c. Mercury vapor lamps, metal halide lamps, high-pressure vapor sodium lamps

- d. Mercury gauges
- e. “silent” light switches
- f. mercury float control switches (like on a sump pump)
- g. flow meters with mercury switches, including some safety valves
- h. flame sensors in cooking, drying and heating equipment
- i. old (pre-1991) fungicides and paints
- j. some bulk cleaning chemicals, including some bleach (sodium hypochlorite) contains mercury as a contaminant. As for a laboratory analysis from your supplier for more information.

3. First Aid/Medical

- a. Mercurochrome
- b. Thimerosal (preservative in some liquid preparations)

Additional Notes and References:

- Fluorescent light bulbs are often an environmentally responsible choice. Even though they contain mercury, they use significantly less electricity for the same amount of light and last much longer than conventional incandescent bulbs. Electricity generation can also release mercury into the environment. It is important that fluorescent bulbs are properly handled during and after use. The bulbs can be easily recycled. See:
<http://www.mass.gov/dep/files/flampbiz.htm> for information on handling and recycling of bulbs. State contracts with mercury lamp recyclers are available; see FAC 26 on <http://www.comm-pass.com/>.
- The state’s Operational Services Division (OSD) also has a program for Environmentally Preferable Purchasing (EPP), at <http://www.mass.gov/epp/enviro.htm>. Here, you can find information on purchasing equipment and supplies with reduced or no mercury added.
- Mercury-free bleaches and other cleaners are available.

Mercury Policies and Procedures at Your Facility

The following checklist, adapted from the Ohio EPA *Mercury Challenge Handbook* (for medical facilities), can be used to evaluate and improve your mercury reduction efforts.

Does your facility--

1. Have a policy regarding the purchase of mercury-containing equipment and products?
2. Track or have an inventory form for mercury containing equipment and products?
3. Have a policy on how to clean up a mercury spill?
4. Train staff in preventing and cleaning up mercury spills?
5. Have procedures for cleaning and refilling instruments containing mercury?
6. Label equipment that contains mercury?
7. Recycle mercury parts when you replace old equipment? (e.g., switches)
8. Require the manufacturer or vendor to disclose mercury content or concentration?

9. Have a policy to ensure mercury products are not disposed of down the drain or in the garbage?
10. Clean mercury out of traps, sumps and sewer lines?
11. Recycle spent fluorescent lamps and other lamps that contain mercury?
12. Recycle batteries containing mercury?